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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/520,246	Applicant(s) MOSSAKOWSKI, GERD
	Examiner MANAV SETH	Art Unit 2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 29 September 2008.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-14 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-14 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____

5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment, filed on September 29, 2008 has been entered in full.
2. Applicant's arguments with respect to the claims as filed have been considered but are not persuasive; therefore on the respective claims still stand. Applicant's amendments to the claim 10 have been entered but are not persuasive, therefore the 35 USC 112 1st paragraph rejection still stands and due to the amendment to claim 10, claims 10-14 are further subject to the rejections under 35 USC 112 2nd paragraph. Claims 1-14 are subject to the rejections under 35 USC 101 due to recent judicial changes, as made below.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-14 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent (*Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)) and recent Federal Circuit decisions (*In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008)) indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps (method steps) or acts to be performed, the claim(s) neither transform underlying

subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example, claims 1 and 10 simply recites method steps, they neither transform underlying subject matter nor positively tie to another statutory category. Examiner suggests amending the claims by inserting a statutory category in the body of the claims so that each method step in the claim is tied to a statutory category. All other claims depending on claims 1 and 10 are rejected under 35 USC 101 at least by dependency on claims 1 and 10.

Claim Objections

5. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not). A succeeding claim should depend on a preceding claim. Claim 2 is objected to because of the following informalities: Claim 2 as amended depends on a claim 3, or in other words “a preceding claim 2 depends on a succeeding claim 3”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 10-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 10 recites “compressing the image array containing both the image data of the pixel groups and additional information” and there is no support for this subject matter in the written description/ specification. As per the specification, specification describes “the maximum value of the array position is derived from the height $h \times$ width b of the array. Position values located outside the array can be used to transmit additional information” (paragraph 0024). Clearly from the portion of the specification cited, the additional information is located outside of the image array. However, claim 10 claims additional information being a part of image array and there is no support for this subject matter in the specification. All other claims depending upon claim 10 are rejected under 35 USC 112 1st paragraph at least by dependency on claim 10.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Amended claims 10-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 10, applicant's amendment to the claim 10 provides the amended limitation “arranging the additional information at position values outside the range of the image array”, which clearly says that the additional information is placed outside the array. The next limitation in the claim 10 recites “compressing the image array containing both the image data of the pixel groups

and the additional information”, which clearly says the additional information is placed in the image array. Clearly the preceding limitation in the claim 10 is not in conformation with the succeeding limitation. The claim is vague and indefinite. Appropriate correction is required. All other claims depending upon claim 10 are rejected under 35 USC 112 2nd paragraph at least by dependency on claim 10.

Response to Arguments

10. Applicant's arguments regarding the prior art rejections under Christopoulos on pages 9-10 of the Amendment filed on September 29, 2008 have been fully considered and are persuasive. Prior art rejections on the claims 2, 5, 7 and 8 have been withdrawn. Applicant's arguments regarding the prior art rejections under Shiromoto on pages 9-10 of the Amendment filed on September 29, 2008 have been fully considered but are not persuasive. In the arguments, applicant argues that “Claim 1 expressly calls for both the image data and additional information to be compressed”. Examiner respectfully disagrees. No where in the claim 1, there is any limitation that says additional information is compressed. The claim 1 recites “transmitting the [compressed] data and the additional information” and further recites “the [compressed] data comprise individual pixel groups, with each pixel group having a position value with in an image array and at least one pixel value”. The claim does not recite anything about additional information. Rather, it is claim 4 that recites “the addition information is provided and transmitted in compressed form”. If applicant wants examiner to consider the additional information as being compressed in claim 1, examiner suggests that such a limitation should be added to the claim 1 in first place.

Applicant further argues in regards to claim 1 “In addition, claim 1 is further distinguishable over Shiromoto et al. in that it calls for "wherein the additional information is placed at position values

that do not occur in the data, and is located instead outside an area of the image array." The header portion HA of the coded image data does not represent a location "outside an area of the image array." Most conventional messages or bitstreams have a header portion which represent a predetermined number of bits at the beginning of or preceding the data portion. This has no relevance to location relative to the area defined by the image array, much less, that such information is "outside an area of the image array." Examiner respectfully disagrees. Applicant's arguments here clearly contradict the subject matter as recited in this instant applicant. The paragraph [00028] of the specification recites "a header is initially transmitted that includes ...possibly additional information". Examiner further asserts that Shiomoto discloses a data packet, in which different data's are positioned at specific position, thus a data packet is nothing but a data stream. Header is a part of the data packet same like the image data is. Thus applicant's arguments with respect to Shiomoto are not persuasive and examiner still maintains the same rejections on the respective claims.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claim 1 is rejected under 35 U.S.C. 102(c) as being anticipated by Shiomoto *et al.*, US Patent Publication No. 2002/0053049 A1.

Regarding Claim 1, Shiomoto discloses a method for transmitting additional information when using a method for compressing data by way of a prioritizing pixel transmission wherein the compressed data comprise individual pixel groups, with each pixel group having a position value within an image array and at least one pixel value (paragraph 0037-0038 – dividing image into image data packets (pixel groups, inherently image is made up of pixels and each pixel has a value), defining a minimal size of the image array by a height h and a width b of an image, expressed in pixels and transmitting the data and the additional information, wherein the additional information is placed at position values that do not occur in the data and is located instead outside an area of the image array (figure 5A-5D - provides additional information area Ha with the image data area where image in this reference apparently has at least a height of 1 pixel and a width of 1 pixel; paragraph 0039- “The image data s1A thus compressed and coded is given a header portion Ha for every data unit (e.g., one picture), as shown in figure 5A and is transmitted to the multiplexing section 33, ass coded data S2A; paragraphs 0041, 0045 and 0069).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 3, 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiomoto *et al.*, US Patent Publication No. 2002/0053049 A1 as applied to claim 1 above, and further in view of Kobayashi et al., U.S. Patent No. 6,493,692 B1.

Regarding claim 6, Shiomoto as discussed in the rejection of claim 1, discloses adding additional information in the header regarding the image related content but Shiomoto does not teach that header can be used to contain the properties of the texture and optionally one or more of fields of document format of the texture, position of the texture in the image/video array, size of the texture in the array, number of bytes required for transmission, part of the total texture, if the total texture must be subdivided into several parts due to its size and additional fields for additional use. However, Kobayashi teaches that header has multiple fields and these fields can be used to carry additional information about the image such as properties of texture including color, width, resolution of the image (col. 9, lines 25-37 and col. 17, lines 34-47). It would have been obvious at the time the invention was made to one of ordinary skill in the art to use the teachings of Kobayashi of using additional fields of header to transmit additional data such as texture of the image in the invention of Shiomoto for the purpose of efficient decoding and reconstruction of transmitted data.

Claim 3 has been similarly analyzed and rejected as per claim 6.

Regarding claim 9, claim 9 wherein the additional is recognized in the receiver in the receiver based on its specific position values. Shiomoto discloses the header of the data packet recites the additional information and the receiver first reads this header information than any other data. Thus the data packet information is read according to the position values of the data packet.

15. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiomoto *et al.*, US Patent Publication No. 2002/0053049 A1 as applied to claim 1 above, and further in view of Xie *et al.* ("Feature representation and compression for content-based retrieval," H. Xie and A. Ortega, Proc. Vol. SPIE 4310, pages 111-122 (2000).

Regarding claim 4, Shiomoto does not explicitly specify providing and transmitting the additional information in compressed form. Xie *et al.* teaches a method according to claim 1 wherein the additional information is provided and transmitted in compressed form ("Wavelet based texture classification is performed with JPEG and SPIHT compressed images as well as with explicitly stored features (in compressed format)," page 118, section 4.1).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to apply Xie *et al.* method of transmitting compressed additional information in Shiomoto's method of transmitting the images. One of ordinary skill in the art at the time invention was made would have been motivated to apply Xie *et al.* method of transmitting compressed additional information in Shiomoto's method of transmitting the images because it would provide reduced transmission bandwidth as well as reduced storage requirements

Examiner note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teaching for the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potential teaching all or part of the claimed invention, as well as the context of the a passage as taught by the prior art or disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manav Seth whose telephone number is (571) 272-7456. The examiner can normally be reached on Monday to Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella, can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Manav Seth/
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